

## MICROGRAPHIA

which it stuck by the root F, at the end of which fastened on a *Hemisphere*, or half a hollow Ball, with the neck of the stemwards, so that it looked much like a Funnel or Bowl without a foot. This night, making many trials of this Experiment, I met, among a multitude of the same, I had observed, a couple of Instances, which are very good confirmations of my *Hypothesis*.

And the First was of a pretty big Ball fastened on a sliver of Iron, which *Compositum* seemed to be nothing but a chip of Iron, one of whose ends was melted into a smooth round Ball, the other end remaining unmelted and irregular, and pebbled.

The Second Instance was not less remarkable than the first, found, when a Spark went out, nothing but a very small round Ball of Iron or Steel, unmelted at either end. So that it seems these Sparks are the slivers or chips of the Iron vitrified by the slivers melted into Balls without vitrification, and are only small slivers of the Iron, made red-hot with the stroke given on the Steel by the Flint.

He that shall diligently examine the *Phenomena* of this will, I doubt not, find cause to believe, that the real cause given of it, is the true and genuine cause of it, namely, the *appearing so bright in the falling, is nothing else but a spark of Flint, but most commonly of the Steel, which by the stroke is at the same time sever'd and heat red-hot, and that the degree, as to make it melt together into a small Globule, is many times also is that heat so very intense, as further to melt the sparks, which notwithstanding falling upon the tinder (that is, small Coal made of the small threads of Linnen char'd) it easily sets it on fire. Nor will any part of this be strange to him that considers, First, that either hammering or otherwise violently rubbing of Steel, will presently be able to burn ones fingers. Next, that the whole weight of the hammer is exerted upon that small part where the Flint and Steel meet, the Bodies being each of them so very hard, the parts being communicated, that is, the parts of each can yield but very little before the violence of the concussion will be exerted on the Steel, which is cut off by the Flint. Thirdly, that the filings of Steel are very apt, as it were, to take fire, and are presently, there seems to be a very *combustible sulphureous* Element, which the Air very readily preys upon, as soon as the Steel is heated.*

And this is obvious in the filings of Steel or Iron cast upon a Candle; for even by that sudden *transitus* of them, they are heat red hot, and that *combustible sulphureous* Element prey'd upon and devoured by the *aereal* incorruptible, whose office in this Particular I have shewn in the foregoing.